

CLAIMS

1. Method of preparing foam from a milk-based alimentary liquid for preparing a drink such as a cappuccino with a device comprising a frame including a support for a container, said support being associated with heating means for heating said alimentary liquid contained in said container when the container is disposed on
5 said support, mechanical stirring means extending at least partially into said container, means for driving said stirring means, and control and command means arranged for automatically controlling the command of said heating means and said drive means, said method comprising the steps of:
 - a) placing a quantity of alimentary liquid in the container associated with
10 said stirring means;
 - b) commanding, via the control and command means said heating means associated with said support for heating said quantity of alimentary liquid and bring it in proximity to or at a predetermined temperature level while commanding said driving means for said mechanical stirring means at a first predetermined stirring speed,
15 lower than the foam generating speed for stirring said quantity of alimentary liquid; and
 - c) commanding, via the control and command means said mechanical stirring means for stirring said quantity of liquid at a second predetermined stirring speed, effective to make said liquid foam.
- 20 2. Method according to claim 1, characterized in that the control and command means are arranged so as to maintain said quantity of liquid at said desired temperature during step c).
3. Method according to claim 1 or 2, characterized in that the control and command means are arranged so as to adapt the quantity of heating energy supplied
25 during step b) as a function of said quantity of liquid.
4. Method according to claim 3, characterized in that the adaptation by the control and command means of the quantity of heating energy supplied is achieved by adjusting the heating power and/or the heating time.
5. Method according to any of claims 1 to 4, characterized in that during
30 step c) the control and command means are arranged so as to drive the stirring means in a discontinuous manner.
6. Method according to claim 5, characterized in that the control and command means are arranged so as to drive the stirring means with a stirring interruption frequency ranging from approximately 0.3 to 0.5 Hz.

7. Method according to claim 5 or 6, wherein said stirring means comprise a rotating stirring element, characterized in that the control and command means are arranged so as to drive said rotating stirring element so that it changes rotational direction after each interruption.

5 8. Method according to any of claims 1 to 7, wherein said second predetermined speed is at least twice, preferably at least three times, higher said first predetermined speed.

9. Method according to of claim 8, wherein the stirring means comprises a rotating stirring element, characterized in that the first stirring speed is comprised
10 between 500 and 1500 rpm and preferably of the order of 800 rpm.

10. Method according to any of claims 8 or 9, wherein the stirring means comprises a rotating stirring element, characterized in that said second stirring speed is comprised between 3000 and 10000 rpm and preferably of the order of 5000 rpm.

11. Device for preparing foam from a milk-based alimentary liquid for
15 preparing a drink such as a cappuccino, including a container for receiving said alimentary liquid, a frame including a support for said container, said support being associated with heating means for heating said alimentary liquid contained in said container when the container is disposed on said support, stirring means extending at least partially into said container, means for driving said stirring means, and control
20 means arranged for controlling said heating means and said drive means, characterized in that said frame is connected to a mobile cover extending above said container, in that said drive means are disposed in said cover and in that said cover is mobile between a first position in which said drive means are coupled to said stirring means and a second position in which said drive means are uncoupled from said
25 stirring means.

12. Device according to claim 11, characterized in that the control means are arranged for heating a quantity of liquid to bring it in proximity to a desired temperature level while stirring said quantity of liquid at a first speed during a first phase and for stirring said quantity of liquid at a second speed higher than the first
30 speed during a second phase.

13. Device according to claim 12, characterized in that the control means are arranged for heating said quantity of liquid during the second phase.

14. Device according to claim 12 or 13, characterized in that the control means include selection means for adapting the quantity of heating energy supplied
35 during the first phase as a function of said quantity of liquid.

15. Device according to claim 14, characterized in that said selection means include a plurality of control keys, each of the keys corresponding to the supply of a quantity of energy for a determined quantity of liquid.

5 16. Device according to claims 11 to 15, characterized in that said container is removably mounted on said support.

17. Device according to claim 16, characterized in that the container is associated with a cover and in that said cover carries said stirring means.

18. Device according to any of claims 11 to 17, characterized in that the stirring means are formed by a rod including a stirring head at its distal end.

10 19. Device according to any of claims 11 to 18, characterized in that said rod is rotatably mounted in said cover.

20. Device according to any of claims 11 to 19, characterized in that the stirring head extends in proximity to the bottom of the container.

15 21. Device according to any of claims 11 to 20, characterized in that the drive means are coupled to said stirring means by a friction coupling.

22. Device according to any of claims 11 to 21, characterized in that it further includes locking means for holding said cover respectively in said first and second positions.

20 23. Device according to any of claims 11 to 22, characterized in that said control means are disposed in said frame, and in that said control means are connected to control keys arranged on one surface of said cover.

24. Device according to any of claims 11 to 23, characterized in that said drive means further include a motor with two directions of rotation.

25 25. Device according to any of claims 11 to 13, characterized in that the control means include temperature detection means and in that the control means are arranged for controlling said drive means in accordance with at least two speed levels as a function of the temperature level detected.